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OCT 15 2007

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method comprising:
 - receiving an allocate request from a queue pair;
 - finding a free buffer in a free pool;
 - determining whether a number of buffers allocatable to the queue pair~~a queue pair~~ is greater than zero;
 - deciding whether a number of buffers allocated to an operation type is less than a maximum; and
 - allocating the free buffer~~a buffer~~ to the queue pair if the queue pair requests the free buffer for an operation having the operation type and the determining and the deciding are true.
2. (Currently amended) The method of claim 1, further comprising:
 - receiving a validate request associated with a data transfer that uses the free buffer.
3. (Original) The method of claim 2, further comprising:
 - determining whether a requester of the data transfer matches the queue pair.
4. (Original) The method of claim 2, further comprising:
 - determining whether a type of the data transfer is valid for the operation type.
5. (Original) The method of claim 1, wherein the determining further comprises:
 - determining whether the number of buffers allocatable to the queue pair is greater than a remaining size of the operation.
6. (Original) The method of claim 1, wherein the operation type is a transmit.
7. (Original) The method of claim 1, wherein the operation type is a receive.

8. (Currently amended) An apparatus comprising:

means for receiving an allocate request from a queue pair;

means for finding a free buffer in a free pool;

means for determining whether a number of buffers allocatable to the queue pair ~~queue pair~~ is greater than zero;

means for deciding whether a number of buffers allocated to an operation type is less than a maximum; and

means for allocating the free buffer ~~buffer~~ to the queue pair if the queue pair requests the free buffer ~~buffer~~ for an operation having the operation type and the means for determining and the means for deciding are true; and

means for receiving a validate request associated with a data transfer that uses the free buffer.

9. (Original) The apparatus of claim 8, further comprising:

means for determining whether a requester of the data transfer matches the queue pair.

10. (Original) The apparatus of claim 8, further comprising:

means for determining whether a type of the data transfer is valid for the operation type.

11. (Original) The apparatus of claim 8, wherein the means for determining further comprises:

means for determining whether the number of buffers allocatable to a queue pair is greater than a remaining size of the operation.

12. (Original) The apparatus of claim 8, wherein the operation type is a transmit.

13. (Original) The apparatus of claim 8, wherein the operation type is a receive.

14. (Currently amended) The apparatus of claim 8, further comprising:

means for deallocating the free buffer if a requestor matches the queue pair.

15. (Currently amended) An adapter comprising:

a free pool of a plurality of entries; and

a controller that receives a plurality of allocate requests from a plurality of queue pairs, finds a plurality of free buffers in the free pool, allocates the plurality of free
plurality of buffers from the plurality of entries in response to the plurality of allocate
requests from the plurality of queue pairs if a number of buffers allocatable to
the plurality of queue pairs is greater than zero, if a number of buffers allocated to an
operation type is less than a maximum, and if the plurality of queue pairs request the
plurality of free buffers for operations having the operation type, validates the plurality of
free buffers for a plurality of data transfers, and deallocates at least one of the plurality of
free buffers in response to a shutdown of an associated at least one of the plurality of
queue pairs.

16. (Currently amended) The adapter of claim 15, wherein the controller further stores status in each of the plurality of entries, wherein the status comprises an indication of whether each of the respective plurality of free buffers is to be used for a master or a target operation.

17. (Currently amended) The adapter of claim 15, wherein the controller further stores status in each of the plurality of entries, wherein the status comprises an indication of whether each of the respective plurality of free buffers is to be used for a RDMA or a send operation.

18. (Currently amended) The adapter of claim 15, wherein the controller further stores status in each of the plurality of entries, wherein the status comprises an indication of whether each of the respective plurality of free buffers is to be used for a read or a write operation.

19. (Currently amended) The adapter of claim 16, wherein the controller further validates the plurality of free buffers based on the status.

20. (Currently amended) The adapter of claim 17, wherein the controller further validates the plurality of free buffers based on the status.